

# WHELEN<sup>®</sup>

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## Installation Guide: Inner Edge<sup>®</sup> Interior Lightbar

### Safety First

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.
- If mounting this product requires drilling holes, the installer **MUST** be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr any holes and remove any metal shards or remnants. Install grommets into all wire passage holes.
- If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro<sup>®</sup>, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.
- Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.
- For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the **NEGATIVE (-)** battery post.
- If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control to be operated safely in any driving condition.
- Do not attempt to activate or control this device in a hazardous driving situation.
- This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.
- Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.
- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

**For warranty information regarding this product, visit [www.whelen.com/warranty](http://www.whelen.com/warranty)**

**IMPORTANT!** Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owners manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.

### Specifications:

<b>Input Voltage:</b>	12.8 VDC +/- 20%
<b>Input Current -</b>	
<b>Simultaneous:</b>	Peak: 2.8 Amps Avg. 1.1 Amps
<b>Alternating:</b>	Peak: 1.4 Amps Avg: 0.56 Amps
<b>Input Sync:</b>	Active Low
<b>Sync Phase:</b>	Phase I & II @ 400ms
<b>Input Scan-Lock™:</b>	+12 VDC @ 20 ma

### Installation:

**IMPORTANT! The lightbar should be located a minimum of 16" from any radio antennas!**

**Note:** When routing the wires, it is important to choose a path that will keep the wires away from excessive heat or any vehicle equipment that could compromise the integrity of the wires (ex. trunk lids, door jams, etc.)

1. Locate and install the rubber window seal (included) onto the lower, leading edge of the housing (see next page).
2. Using an appropriately sized Torx head screwdriver, loosen the three screws securing the driver-side visor swivel bracket to the vehicle. Do not remove these screws.
3. Remove the screws securing the visor clip to the vehicle. Remove and retain the clip and all hardware.
4. Locate the driver-side mounting bracket (indicated with a "D" label) and orient as shown (see Fig. 1).
5. Slide the mounting bracket fingers between the loosened swivel bracket and the headliner. The bracket fingers should straddle the inner section of the swivel bracket when properly oriented.
6. Position the keyed opening of the mounting bracket directly under the mounting location for the visor clip removed in step 2. With the bracket in this position, remount the visor clip in its original location using the original hardware.
7. Firmly tighten any hardware loosened in this procedure.
8. Repeat this procedure for the passenger-side mounting bracket (indicated with a "P" label).
9. Position the lightbar as shown in Fig. 1. Using the hardware provided, secure the lightbar to the mounting brackets. Tighten this hardware firmly.
10. Route the lightbar cable down the vehicle A-pillar and to your control head.
11. Make all necessary wiring connections using the information provided.

**Important Impala mounting note!** When mounting this product in a Chevrolet Impala, an optical gasket must be installed as shown on the following page. Failure to do so could result in reflected light within the passenger compartment.

### Wiring:

**WARNING!** All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and **FUSED** at the battery to carry that load. **DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!**

**BLACK (GROUND)** - Connect this wire to Chassis Ground.

**RED (Main Power)** - Connect this wire to an ignition controlled circuit capable of accommodating an additional 10 AMP current draw.

**BROWN (Low Power)** - When +12 VDC is applied to this wire, the lightbar is placed in Low Power mode. Remove this voltage to restore normal operation. A SP/ST switch is best suited for this circuit. Fuse this wire @1A.

**WHITE/GREEN (Scan-Lock™)** - The Scan-Lock pattern control wire functions as follows:

**To cycle through all patterns:** Apply +12 volts to the WHT/GRN wire for less than 1 second and release to cycle forward. Apply +12 volts to the WHT/GRN wire for more than 1 second and release to cycle backward.

**To set a pattern as default:** When the desired pattern is displayed, allow it to run for more than 5 seconds. The lighthouse will now display this pattern when active.

**To reset to the factory default pattern:** Turn off power, apply +12 volts to the WHT/GRN wire, then turn power on.

**Note:** If the owner wishes to connect the Scan-Lock wire to a switch, an SP/ST momentary switch is recommended.

**Available Scan-Lock Flash Patterns:** SignalAlert™ > CometFlash® > SingleFlash 375 > SingleFlash 75 > ActionFlash™ > ModuFlash™ ZigZag 60 > ZigZag 90 > ZigZag 120 > ActionScan™

A Normally Open Momentary Switch is best suited for this circuit. Fuse @1A.

**NOTE:** When the lightbar is active, a red, LED indicator located on the underside of the housing will be visible.

**WHITE/ORANGE (Steady Option)** - Applying +12VDC to this wire turns two lighthoods on in steady mode. Note that this is an optional function and is not present on all lightbars. A SP/ST switch is best suited for this circuit. Fuse this wire @1A.

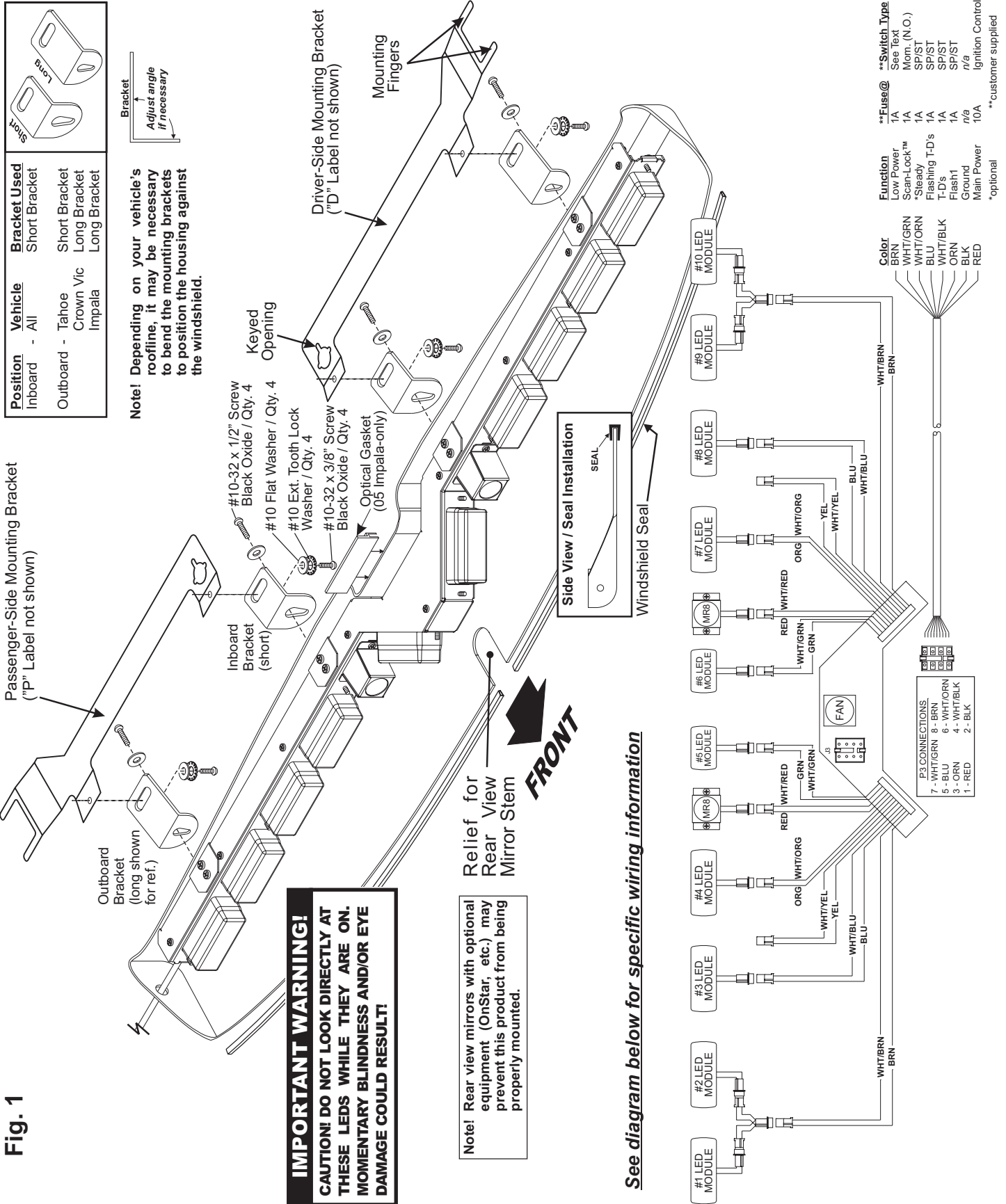
**BLUE (Flashing Take-Down)** - When +12VDC is applied to this wire, the Take-Down's are activated in flashing mode. A SP/ST switch is best suited for this circuit. Fuse this wire @1A.

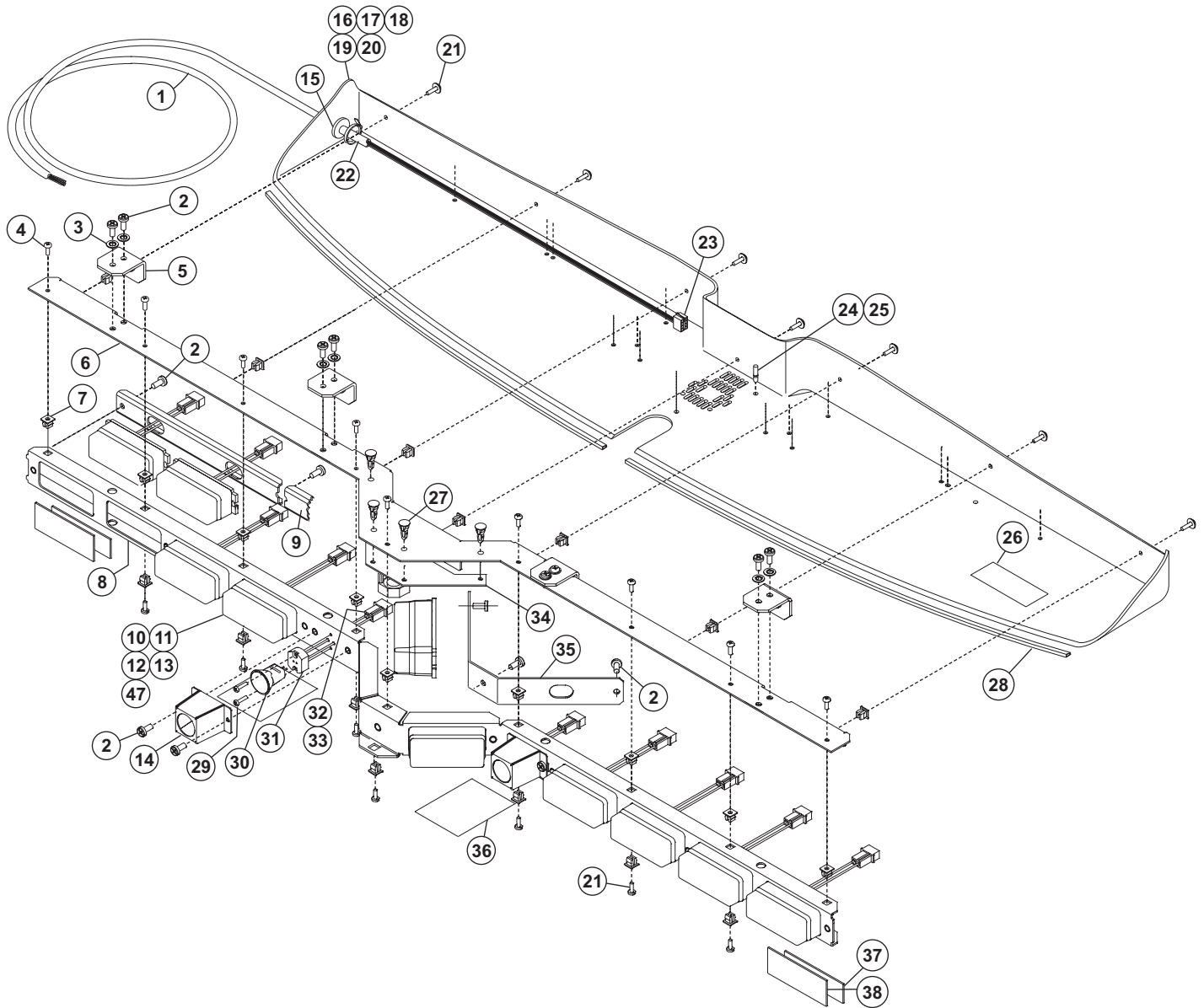
**WHITE/BLACK (Take-Down)** - When +12VDC is applied to this wire, the Take-Down's are activated in normal, steady mode. A SP/ST switch is best suited for this circuit. Fuse this wire @1A.

**ORANGE (Flash)** - When +12VDC is applied to this wire, the lightbar will display the last active Scan-Lock flash pattern. A SP/ST switch is best suited for this circuit. Fuse this wire @1A.

When this product is wired as outlined here, the lightbar will not function until the ignition switch is in the ON, RUN or ACC position.

**Fig. 1**





QTY	ITEM	PART NUMBER	DESCRIPTION
*		01-0684269-__	LIGHTBAR, INNER EDGE® INTERIOR SERIES
1	1	46-0743243-01	CABLE ASSY, 9-C 18GA. TPR 20'
21	2	14-082215-050	SCREW, #8-32 x 5/16 PPHMS SS BLACK OX
8	3	16-0821220-40	WASHER, #8 INTERNAL TOOTH LOCK
9	4	15-06521B-060	SCREW, #6 X 3/8 PPH PLASTI-LOK SS BLACK OX
4	5	07-243216-023	BRACKET, MOUNTING
1	6	07-784258-023	PLATE, MOUNTING
23	7	13-062C40-16J	SCREW GROMMET, #6 - #8 FASTEX
1	8	07-284261-023	BRACKET, LIGHTHEAD
4	9	07-243218-000	BRACKET, TIR3™ MOUNTING
A/R	10	02-036B494212	LIGHTHEAD, TIR3™ LED STEADY (AMBER)
A/R	11	02-036B494222	LIGHTHEAD, TIR3™ LED STEADY (BLUE)
A/R	12	02-036B494232	LIGHTHEAD, TIR3™ LED STEADY (WHITE)
A/R	13	02-036B494252	LIGHTHEAD, TIR3™ LED STEADY (RED)
2	14	11-264117-006	COVER, MR8
1	15	21-11121602-0	GROMMET
A/R	16	11-484270-000	HOUSING, INT. LIGHTBAR, '04-'05 CROWN VIC
A/R	17	11-484335-000	HOUSING, INT. LIGHTBAR, '05-'06 CROWN VIC
A/R	18	11-484304-000	HOUSING, INT. LIGHTBAR, SUBURBAN-TAHOE
A/R	19	11-484320-000	HOUSING, INT. LIGHTBAR, '05 IMPALA
A/R	20	11-484349-000	HOUSING, INT. LIGHTBAR, '05 EXPEDITION
14	21	15-M23B1C-120	SCREW, M4.2 X 12MM, BLACK OXIDE
1	22	26-0215001-06	TY WRAP, 6" BLACK
1	23	39-0408323-04	HOUSING, SOCKET - 8 POS AMP CMNL

QTY	ITEM	PART NUMBER	DESCRIPTION
1	24	68-1900250-30	LIGHT PIPE
A/R	25	66-0715289-00	SUPER BONDER #495 LOCKTITE
1	26	10-0523169-()	LABEL
4	27	20-0017569-00	SPACER, MTG - PCB
2	28	38-0543284-22	SEAL, EXTRUDED, INNER EDGE
4	29	14-040216-060	SCREW, #4-40 X 3/8 LG PPHMS
2	30	34-21120D0-20	LAMP, MR8 20WATT
2	31	33-25217515-0	BASE, LAMP
2	32	39-0402313-04	HOUSING, PIN 2 POS AMP CMNL
4	33	39-0501316-04	PIN, 20-14AWG AMP CMNL
1	34	02-0164186-00	ELECT. ASS'Y, 10 LIGHTHEAD FLASHER AMP
1	35	07-264206-000	BRACKET, V-MOUNT 3TIR
2	36	38-0623178-00	PAD, INSULATOR, MR8 LIGHT
A/R	37	38-0123089-00	GASKET, T-A SPACER
A/R	38	09-1323185-00	PANEL, FILLER - INNER EDGE® 8 POS
2	39	46-0764408-00	HARNESS ASS'Y, INNER EDGE® - 12 POS.
A/R	40	46-0743226-00	Y-HARNESS, LIGHTHEAD
A/R	41	26-0215001-03	TY WRAP, 3"
A/R	42	01-0484269-04	MOUNTING KIT, '05 EXPEDITION
A/R	43	01-0484269-03	MOUNTING KIT, '05-06 CROWN VIC
A/R	44	01-0484269-02	MOUNTING KIT, SUBURBAN-TAHOE
A/R	45	01-0484269-01	MOUNTING KIT, IMPALA
A/R	46	01-0484269-00	MOUNTING KIT, '04-05 CROWN VIC
A/R	47	02-036B494242	LIGHTHEAD, TIR3™ LED STEADY (GREEN)